DOCUMENT RESUME

ED 072 816 LI 004 169

AUTHOR Roberts, S. A.; And Others
TITLE Characteristics of Citations in Social Science Monographs.
INSTITUTION Bath Univ. of Technology (England). Univ. Library.
PUB DATE Jun 72
NOTE 37p.; (14 References); Design of Information Systems in the Social Sciences (DISISS) Working Paper No. 4

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *Bibliographic Citations; *Design; Foreign Countries; *Information Systems; *Literature; Periodicals; Reports; *Social Sciences
IDENTIFIERS *England

ABSTRACT

DISISS (Design of Information Systems in the Social Sciences) is a research project based at the University of Bath. The objective of the project is to carry out research necessary for the effective design of information systems in the social sciences, whether by the creation of new systems or the modification of existing systems. Analysis of citations in monographs is necessary as a check on the lists of "core" journals provided by analysis of citations in journals, and as a means of identifying particular titles, authors and categories of monograph likely to be in heavy demand or of special importance. The study described in this working paper is designed to identify the main characteristics of citations in social science monographs and other non-serial literature. This paper describes the objectives, methods and preliminary analyses associated with the study. The citation data is taken from social science monograph sources drawn at random from the British, American, French and German book outputs in 1951, 1961, and 1971. This study of citations in monographs complements the data already collected from social science journal sources; comparative analyses are made on the two data files. (Author/NH)

FILMED FROM BEST AVAILABLE COPY

Bath University Library

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

ED 072816

Design of Information Systems in the Social Sciences

Working Paper No. 4

CHARACTERISTICS OF CITATIONS IN SOCIAL SCIENCE MONOGRAPHS

June 1972

LI 004 169

CONTENTS

	Page
1.0 INTRODUCTION	
1.1 Definition of monographs	2
1.2 Objectives of study	3
1.3 Scope of studies	4
2.0 DATA COLLECTION	
2.1 Sample of source monographs	6
2.1.1 British monographs	6
2.1.2 United States monographs	8
2.1.3 Non-English language monographs	8
2.2 Sampling citations	8
2.3 Citation record format	9
3.0 ANALYSIS	
3.1 Types of analysis	10

APPENDICES

A. Source sample of British monographs, 1971

B. Source sample of United States monographs, 1971

C. Subject classification of British monographs source sample

D. Subject classification of United States monographs source sample

E. Citation record cards

F. List of DISISS Working Papers

TABLES

Table 1	Distribution of source monographs	5

PREFACE

This working paper is the result of the joint efforts of members of the DISISS team. The paper was drafted by Mr. Roberts with assistance from Mr. Brittain and Miss Skelton. Mr. Line read through the various draft versions of the paper making many helpful comments, supplying additional material, and proof-reading. Other help was given by Mr. Bradshaw, Mr. Nicholas and Miss Ritchie.

The members of the DISISS team are as follows:

Project Head:	M.B. Line
Senior Research Fellow:	J.M. Brittain
Research Fellow:	S.A. Roberts
Assistant Research Officer:	Miss B. Skelton
Programmer/Analyst:	R.G. Bradshaw Mrs. C. Arms (part-time)
Consultant Systems Analyst:	W.Y. Arms, Lecturer in Mathematics Open University

Members of staff of the Polytechnic of North London, School of Librarianship, associated with DISISS are as follows:

Research Assistant:	D. Nicholas
Research Assistant:	Miss M. Ritchie
Lecturer at PNL:	Mrs. P. Layzell Ward

1.0 INTRODUCTION

DISISS (Design of Information Systems in the Social Sciences) is a research project based at the University of Bath. The objective of the project is to carry out research necessary for the effective design of information systems in the social sciences, whether by the creation of new systems or the modification of existing systems. The project, which is financed by OSTI, commenced in January 1971 and will run until the end of 1973. A substantial part of the research is concerned with the size and structure of the primary and secondary literature, and in this the counting and analysis of citations play an important role.

While much work has been done on citations in journals, particularly with the aim of identifying "core" journals, very little work has been done on citations in monographs. This is necessary as a check on the lists of "core" journals provided by analysis of citations in journals, and as a means of identifying particular titles, authors and categories of monograph likely to be in heavy demand or of special importance. Studies of this kind provide moreover information on the use of literature in foreign languages, on obsolescence, and on subject scatter - all important factors in information system design.

The preliminary work on counting of citations in social science monographs is reported below. Work on other parts of the project has been reported in a number of working papers which are listed in Appendix F. These working papers, together with an outline of the work carried out in 1971, can be obtained from the Library, University of Bath.

The study described in this working paper is designed to identify the main characteristics of citations in social science monographs and other non-serial literature. This paper describes the objectives, methods and preliminary analyses associated with the study. The citation data is taken from social science monograph sources drawn at random from the British, American, French and German book outputs in 1951, 1961 and 1971. This study of citations in monographs complements the data already collected from social science journal sources; comparative analyses will be made on the two data files.

1.1 Definition of monographs

AACR 1967 defines "monograph" as a "non-serial publication[1], either complete in one volume or intended to be completed in a finite number of volumes[2]".

Various dictionary definitions of "monograph" would appear to exclude some categories of publication, such as many government publications[3], conference proceedings and reports, but for the purpose of this paper "monograph" is held to include all non-serial publications, with the exception of report literature (which in the strict sense of technical report literature is not listed in the bibliographies chosen as sampling frames in this study).

Monographs can for convenience be divided into two sub-categories:

(i) Scholarly monographs.
A treatise on a single aspect of a subject; usually "a single volume or definite number of volumes dealing systematically and in detail with one single subject"[4]. Precise definition is difficult in this case, but in the main, scholarly publications usually involving sustained research work in their preparation are included in this category.

---

[1] The Anglo-American Cataloguing Rules (1967) provide a working definition of serials as follows: "a publication issued in successive parts bearing numerical or chronological designations and intended to be continued indefinitely. Serials include periodicals (e.g. newspapers, journals and the memoirs, proceedings, transactions, etc., of societies), and numbered monographic series". Simply by definition, non-serials are taken as those publications which do not fall into the class of serials.

[2] Anglo-American Cataloguing Rules (British text). London, The Library Association, 1967, pp.267-268.

[3] In fact, the sampling frames used have very poor coverage of government publications, so that although they are not excluded deliberately for the purpose of this study, they are by no means fully represented.

[4] Laundau, T. Encyclopaedia of librarianship. London, Bowes and Bowes, 1966, with minor modification.

(ii) Other non-serial publications.

In the present study, excluding technical report literature (and many government publications: see above).

These sub-categories are required as a basis for the classification of source monographs. Scholarly monographs and other types of monograph are likely to have different citation characteristics and the observed differences will be taken into account in the analyses of citation data; citation records will be tagged accordingly by form and subject (see section 2.3).

1.2 Objectives of study

The main uses to which the data obtained will be put are:

(a) A description of the characteristics of citations in monographs. The parameters considered include date of publication, country of publication, subject and the proportion of citations to serials, monographs, and other forms of material, for example archives, unpublished sources, reports, etc. Using data on these parameters, an attempt will be made to identify the pattern and structure of citation in social science monographs.

(b) A comparison of the characteristics of citations in monographs and serials using the data on the parameters in (a) above and data from citation files based on journal sources (DISISS, Science Citation Index).

(c) Comparisons of the characteristics of citations from social science monograph sources in 1951, 1961 and 1971.

(d) Assessment of the role of the monograph literature in the social sciences, and the part it plays in the accumulation and transfer of knowledge, by making a study of:

(i) most frequently cited authors and monograph titles

(ii) the distribution and structure of citations across and between social science and other subjects

(iii) the obsolescence rate of monographs measured by the dates of publication of cited monographs

(iv) citations from English, French and German language monograph sources and comparisons of the patterns observed.

(e) The relationships between citation characteristics, citation behaviour[1] and the size of the literature base. Citation data and bibliometric data on the size and growth of the literature can be related to each other; citation characteristics (for example, the subject scatter of citations, the form of citations) and the size of the literature base may not be related, and this may be due to the concentration of citations, for example, on "core" journals, accompanied by relatively low frequency of citation to, but significant use of, a large non-serial literature, for example, handbooks, reference sources, unpublished materials, ephemeral publications and reports, which do not contribute to the citation pattern. Use of literature is related to both citation and size characteristics and could be studied by taking account of data on library use, inter-library loan requests, and book borrowings.

(f) Application of clustering techniques to citations in monographs. Some of the citation data from social science monograph sources is suitable for the application of citation clustering techniques. Citations to journals can be clustered just as citations to journals from journal sources can be; however a monograph source is less able to generate comparable densities of citation than journal sources and for effective clustering some grouping of monograph sources may be necessary. Theoretically, it is possible to cluster citations to monographs from monograph sources and this will be attempted if suitable data results from the citation analyses.

1.3 Scope of studies

About 15,000 citation records will be collected from social science source monographs published in 1951, 1961 and 1971. The sampling frames for source monographs are: British monographs (British National Bibliography), United States monographs (American Book Publishing Record), French monographs (Bibliographie de la France), and German monographs (Deutsche Bibliographie and/or Deutsche Nationalbibliographie).

The number of source monographs from each country and date is shown in Table 1. To ensure that the various parametric analyses are valid it was felt

---

[1] Citation behaviour refers here to the motivation for and activity of citing by authors. No reliable data exists to feed in to the analyses proposed in this study, but note will be taken of the hypotheses which exist and an attempt made to explain citation practice, ethics, etc.

desirable to collect at least 1,000 citations in each of the main categories. In each source monograph every 10th citation is recorded; in order to obtain at least 1,000 citations in each category a minimum of 65 sources are required in each category, given that, on average, a monograph source contains 150 citations[1].

In collecting citation data with fairly limited resources, it has been decided to concentrate on breadth of coverage from a large number of sources, rather than collect a greater number of citations from fewer sources. A broad based citation collection should give a more valid picture of citation characteristics, covering more or less the whole field of the social sciences.

The table shows that greater coverage is given to English language sources in 1971, and for all sources in 1971, compared with earlier periods: this should enable more detailed results to be obtained for the most recent period. Fewer French and German sources are taken in view of potential difficulties in obtaining copies.

Table 1. Distribution of source monographs (number of source items).

Year	English language		French	German	TOTAL
	British	United States			
1951	65	65	65	65	260
1961	65	65	65	65	260
1971	150	150	100	100	500
Total	280	280	230	230	1020

[1] A pilot test on social science monographs gave an average of 180 citations per source; the values for the range were between 0 and 556. An average value of 150 citations per source has been used in calculations of number of sources required.

2.0 DATA COLLECTION

2.1 Sample of source monographs

The first stage of the study consists of collection of citations from British and American social science monographs published in 1971 and chosen by random sampling. The two samples drawn so far list 150 or more monograph items in each; additional titles have been collected in excess of the values in Table 1, to allow for such contingencies as further rejection of items on inspection, due to deficiencies in form, content, audience level characteristics and unavailability.

The British sample for 1971 is listed in Appendix A, and the United States sample in Appendix B. An analysis of the samples is presented in Appendices C and D.

2.1.1 British monographs

The sampling frame used is the British National Bibliography (1971). British National Bibliography (BNB) attempts to list every new work published in the British Isles, using material received by the Agent for the Copyright Libraries. BNB provides the most comprehensive listing of monographs published in Britain gathered into one source book. Very few categories of publication are excluded (for example, periodicals, except for the first issue, and first issue under a new title; music; maps; most government publications[1]; and publications without a British imprint, except those published in the Republic of Ireland).

Material in the BNB is classified by the Dewey Decimal classification, and for the purpose of this study the sources are drawn from the following classes, which contain the bulk of material relevant to the social sciences[2]: classes 150-159, 300-339, 350-354, 360-365, 370-399, 400-419, 572, 614, 658, 711-719, 900-912, 914-919, 940-999.

---

[1] An estimated 10 per cent of British government publications are listed, including the most significant HMSO publications. More detail is given in the Preface of the annual cumulation of the BNB.

[2] A full list of subject headings is given in Appendix C.

In drawing the sample the entire sampling frame (the relevant classes stated in the preceding paragraph) has been used. The sampling procedure was as follows: the number of entries in the social science classes was counted (about 10,580 in all, including some which were eventually rejected, because of duplication and other reasons mentioned below). Although only 150 items were required for the final source list, nearer 300 items were drawn at random from 10,580. The sample was drawn and examined, and non-relevant items were rejected. The entries were recorded on index cards and form part of a master list of source monographs, containing bibliographic details about each source item.

The 1971 BNB used as a sampling frame consisted of two four-monthly cumulations and 13 weekly parts, since the annual volume was not published in time for the study. Entries in each of the 15 sections are in full classified sequence. This arrangement makes no difference to the random sample drawn and in the drawing procedure the entries are treated as one sequence.

Two main reasons for rejecting material from the sample drawn were (i) the form of certain items, and (ii) the effect of time lag in entry. Entries referring to new serial publications, changes in serial titles, juvenile works and certain annuals and irregular serials were rejected. Decisions as to which categories to exclude were made with some difficulty. It was finally decided to exclude certain categories of monograph in the sample: for example reprints, facsimile reprints, "readings", some collections of essays, most conference proceedings, most biographical works and "personal" observations[1], school texts and works published in more than one place (of which one is in the UK) at different dates.

New translations into English, new editions, published lectures[2], a number of biographical works[3] and new editions or works published simultaneously in the UK and other countries in 1971 were retained in the sample.

---

[1]This category includes "first-hand" accounts, memoirs, reminiscences and popular autobiographies.

[2]Mainly individual lectures (e.g. inaugural lectures) and published lecture series.

[3]A distinction is made between popular and scholarly biographical works; on the whole the former are excluded and the latter included.

The effect of time lag in entry must be taken into account. The 1971 BNB contains a fairly large proportion of entries relating to 1970, and any of these drawn in the random sampling were rejected. In order to state that the sampling frame consisted of all 1971 imprints listed in BNB it would be necessary to draw items from both the 1971 and 1972 issues of BNB; it would be possible to extend the sampling to include 1971 imprints listed in 1972, although this is not planned at present.

One additional problem was created by added entries. In the 1971 BNB any item can be recorded with several added entries under different class numbers. Before 1971 added entries were unnumbered in BNB, so they could be identified easily and excluded from the sampling frame. It is necessary to know the total number of items in the frame when drawing numbers from a table of random digits. It was not considered worthwhile making the extra effort to distinguish added entries, and any duplicate items have been rejected from the final sample as they occurred.

2.1.2 United States monographs

The sampling frame used is the American Book Publishing Record (ABPR)(1971). The classification is based on the Dewey Decimal classification, and with only minor adjustments can be made compatible with 1971 BNB.

The physical arrangement of ABPR is virtually the same as BNB; as no annual cumulation is yet available the sample was drawn from twelve monthly issues. The sampling procedures, types of item rejected and problems encountered are similar to those already mentioned for BNB.

2.1.3 Non-English monographs

If resources allow, citations will be collected from some French and German language monographs. The possible sampling frames are being evaluated, but sampling procedures similar to those described earlier should be applicable. Bibliographie de la France and Deutsche Bibliographie and/or Deutsche National-bibliographie should provide suitable sampling frames.

2.2 Sampling citations

Every 10th citation will be collected from each source monograph; this was

felt to be the most convenient method of collecting citations and is considerably easier than random sampling of citations, which involves a good deal more clerical and administrative effort.

Taking every 10th citation over approximately 1,000 sources, and generating some 15,000 citations in the process, should provide ample and valid data for analyses (section 3.0). The sampling interval is wide enough to overcome any effect of order and location of citations on sampling. Interval sampling is a pseudo-random method quite adequate for the study.

Within monographs, citations can be found in a great variety of places (separate bibliography, end of each chapter, text, footnote) and arrangements (numerical, classified, alphabetical); this however should have no effect on the sampling of citations. By taking every nth citation, the number of citations sampled is proportional to the total number of citations in the monograph. Where the nth citation occurs on a multiple reference (indicated by ibid., op. cit., etc.) the interval rule is relaxed and the next full citation taken; subsequent counting follows the original interval; this procedure was adopted for convenience and to ensure that every citation collected is unique.

The citation record is the same as used for citation studies involving journal sources. Data collection record cards are reproduced in Appendix C. Two modifications have been made: field(8) is replaced by a two letter code for the country of origin and field (9) by a two letter code for subject content. After modification the record format for citations from monograph sources consists of the following fields:

(1) Record number
(2) Source code (Year, volume and page number omitted when citation taken from a monograph source)
(3) Authors of source item
(4) Authors of cited item
(5) Title of cited document
(6) Form of cited document
(7) Year of publication of cited document (In data collection this is normally the date of edition cited)
(8) Country of origin
(9) Subject content

When a citation refers to a serial publication the top left-hand corner of the data collection card is removed, and data fields (8) and (9) refer to volume number of cited document and page numbers of cited items respectively.

Pilot tests have been made to determine the accuracy of judgement for country and subject coding and to estimate the time taken and effectiveness of editing and checking. Adequate subject coding is most difficult to achieve; it requires bibliographical checking which is very time consuming.

The subject coding given to both source monographs and cited monographs (field 9) cannot be assigned with complete objectivity. The coding used for the citations is a broad classification of the social sciences by major disciplines. The source monographs are pre-coded by the schemes used in the sampling frames (Dewey Decimal classification or broad subject terms); in particular, topography and history are given special recognition, whilst government publications are also separated.

3.0 ANALYSIS

3.1 Types of analysis

The data is suitable for input to a machine readable file. Manual analysis will supplement the computer output. Data on citations to both monographs and serials is used in the analysis.

Analyses include:

(a) Calculation of the percentage of citations accounted for by monographs and serials. In view of the variety of source monographs used, some source types, for example, topography, history, government publications and scholarly monographs are tagged so that variations in characteristics of citation between sources can be identified in the analyses.

(b) Compilation of a ranked list of cited journals from monograph sources. Comparison of ranked list with similar lists generated from journal sources.

(c) Identification of the most frequently cited monographs and authors.

(d) Measures of the characteristics of citations based on:

(i) date of publication of cited monographs. Calculation of median citation age and half life of a sample of citations. In some cases the original date of publication will be hard to establish. Pilot studies have shown that checking and tracing date is a time consuming bibliographical task. Where later editions are involved, the date of edition cited will normally be used.

(ii) country of origin and subject classification of cited monographs. Attempts will be made to rank citations to monographs by subject, place of publication and country of origin; and, although crude, the results may show patterns relating to the different types of source monograph.

(iii) relating citations to monographs to bibliometric data on size, subject and geographical distribution of monograph literature.

(e) Comparison of measures based on (d) (i), (ii) and (iii) with citations to monographs and journals in journal sources.

(f) Comparisons of the characteristics of citations from journal and monograph sources over time periods 1950/51, 1960/61 and 1970/71. (Data from journal sources was collected for 1950, 1960 and 1970 and from monograph sources for 1951, 1961 and 1971).

(g) Application of clustering techniques to citation data from monograph sources may be attempted. Citations from monographs to journals and monographs to monographs can be used. Technical difficulties involving the density of citations and grouping of sources will need solving before reliable results can be expected.

APPENDIX A

Source sample of British monographs, 1971

The titles listed below were selected from the British National Bibliography (1971) according to the criteria given in section 2.1.1. Classification is taken from the 18th edition of the Dewey Decimal Classification.

Advisory group on shipbuilding on the Upper Clyde Report of the Advisory Group	338.4'7'62382009414
An aid to pedestrian movement	711'.7'0942132
Ankerman, R.C. Approaches to beginning reading	372.4'14
Appleton, Ted Hitch-hikers guide to Europe	914'.04'55
Bagley, Christopher The social psychology of the child with epilepsy	362.7'8'196853
Bedfordshire Planning Dept. Sharnbrook conservation area: proposal	711'.4'0942565
Bingham, Caroline James V: King of Scots 1512-1542	941'04'0924
Black, Robert The Socialist Labour League and the fight for Bangla Desh	322'.42
Bolton, John Harvey Flexible working hours	331.2'57
Bowle, J. The English experience	914.2
Brandel-Syrier, M. Reeftown elite: a study in social mobility	301.44'044'096822
Brightly, D.S. Complete guide to financial management for small and medium sized companies	658.1'5904
British National Export Council The market for clothing in the Caribbean	382'.45'687
Brothers, Joan Religious Institutions	301.5'8'0942

Bryant, A. The Great Duke	940.2'7'0924
Calvocoressi, Peter World politics since 1945	320.9'04
Campbell, Colin David Toward a sociology of religion	301.5'8
Carter, April The political theory of anarchism	320.5'7
Cassar, George H. The French and the Dardanelles	940.4'25
Catlin, G. Against the break-up	327.42
The challenge of Outward Bound	370.11'4
Chou, Eric The dragon and the phoenix: love, sex and the Chinese	301.41'79'51
Cole, M.H. Year round cauliflower production in Lincolnshire, Kent and Cornwall	338.1'7'5350942
Commission on Industrial Relations: Cmnd. 4642	331.041'368'006542
Computer in central government ten years ahead	354.42'00028'58
Copeman, George The chief executive and business growth: a comparative study	658.4'2
Cox, C.B. The black papers on education	370'.942
Crosland, C.A.R. A social democratic Britain	329.9'42
Cunliffe, M. The "Times" history of our times	901.9'4
Daly, Martin Characteristics of 12 clusters of wards in Greater London	352'.0421
Davey, T.H. Davey and Lightbody's "The control of disease in the tropics"	614'.0913
Davidson, Basil Which way Africa	320.9'6

Debray, Régis
Conversations with Allende: socialism in Chile — 320.9'83'064

Dodd, A.H.
The industrial revolution in North Wales — 338'.09429

Dodd, A.H.
Studies in Stuart Wales — 914.29

Douglas-Home, Sir Alec
The modern Commonwealth — 910.09'171'242

Duncan, T.L.C.
Measuring housing quality — 301.5'4

Dymond, Dorothy
Portsmouth and the fall of the Puritan republic — 942.2'7

Economic Consultants Ltd.
Demand and supply for office workers and the local impact of office development — 331.1'1

Educational Interchange Council
Group visits to E. Europe — 914.7

Edwards, G.A.B.,
Readings in group technology — 658.5

EFTA, Economic Development Committee
Industrial mobility — 338'.094

Egbuna, Obi Benue
Destroy this temple: the voice of Black Power in Britain — 301.451'96'0942

Entwistle, H.
Political education in a democracy — 320'.071'242

Essex Planning Department
Proposal. Comprehensive Development Area No. 53 — 711.4'

Essex Planning Department Proposal. Comprehensive Development Area No. 54 — 711'.4'094267

Expert group on special care for babies.
Report..... — 362.7'8'19892010942

Farm incomes in England and Wales — 338.1'3

Fersen, Axel von
Rescue the queen — 944.04'1

Fogarty, Michael Patrick
Sex, career and the family — 301.41'2

Gethyn-Jones, J.E. Berkeley, Gloucestershire 1971	914.24'1
Gibson, C.R. Foreign trade in the economic development of small nations: the case of Ecuador	330.9866'07
Goldsworthy, David Colonial issues in British politics	325.3'42
Gordon, Sheila World problems	362'.042
Goslett, Dorothy The professional practice of design	658'.91'7452
Great Britain. Central Office of Information Freight transport	380.5'2
Great Britain. Department of Health and Social Security. Youth treatment centres.	362.7'4
Great Britain. Treasury First report from the Select Committee on the Parliamentary Commission for Administration	336.2'42'0942
Greenberg, Louis M. Sisters of liberty: Marseille, Lyon, Paris and the reaction to a centralized state	944.081
Grossman, Gregory The industrialization of Russia and the Soviet Union	338'.0947
Hababbuk, H.J. Population growth and economic development since 1750	301.3'29'4
Hamilton, Alisdair The appeal of fascism	320.5'33
Harris, Alan Emergency	373.1'37
Haslip, Joan Imperial Adventurer: Emperor Maximilian of Mexico	972'.07'0924
Health services in Scotland. Cmnd. 4667	362.1'0941
Heer, N.W. Politics and history in the Soviet Union	947'.0072
Hellmuth, J. (ed.) Cognitive studies, vol. 2	153.4

Horden, J. Small firms in motor vehicle distribution	381'.45'62920942
Herriot, Peter Language and training: a psychological view	401.9
Hiebert, P.G. Konduru: structure and integration in a South Indian Village	301.29'54'84
Higonnet, P.L.R. Pont de Montvert	309.1'44'815
Hillman, Judy (ed.) Planning for London	309.2'62'09421
House, Jack Stewarton	914.14'2
Hughes, G.A. Men of no property: historical studies of Welsh trade unions	331.8'09429
The humanization process	371.9'28
Hussey, David Edward Introducing corporate planning	658
Irving, C. The Adriatic islands	914.97'2
Johnson, D. A concise history of France	914.4
Jones, K.W. Romantic railways	385
Kalla-Bishop, P.M. Italian railways	385'.0945
Kennedy, D. The birth and death of a Highland railway	385.'09413'8
Kipins, David Character structure and impulsiveness	155.5
Laurie, Peter Drugs: medical, psychological and social facts	362.2'93
Levinson, Charles Capital, inflation and the multinationals	338.51
Lichtheim, G. Imperialism	321'.03
Liebert, Robert Radical and militant youth	322'.44

Lipson, H.A. Introduction to marketing: an administrative approach	658.8
Locke, Don Memory	153.1'01
Long term population distribution in Great Britain	301.3'29'42
Luckham, R. The Nigerian military	320.9'669
Mattil, Edward la Marr Meaning in crafts: 3rd ed.	372.5
McKenzie-Hall, J.E. Low cost homes to rent or buy	334'.1
Male, Donald John Russian peasant organisation	338.7'63'0947
Malik, Y.K. East Indians in Trinidad	323.1'19'1411072983
Mau, H. German history, 1933-45	943.086
Mayo, O.G. (ed.) Consumer credit control	658.88'3'0942
Mays, Spike No more soldiering for me	914.2'03'820924
Mészáros, Istvan Aspects of history and class consciousness	301.44
Millward, Roy The lower Wye valley	914.24
Mitchison, Lois Chinese revolution	915.1
Morris, M.C. Britain's changing countryside	914.2
National Union of Teachers Teacher participation: a study outline	371.1'06
NCCL Children in residential care	362.7'32
Niedergang, M. The 20 Latin Americas, Vol. 1 & Vol. 2	918
Nobbs, Jack Economic problems of the 1970's	330.942'085

Nock, O.S. Railways of the world, vol. 2, Railways of Australia	385
Oram, Robert Bruce The efficient port	658'.91'3871
Paish, F.W. Rise and fall of incomes policy	339.2'1'0942
Pakenham, Simona Cheltenham: a biography	914.24'1
Pelizyuski, Z.A. (ed.) Hegel's political philosophy	320'.01
Peterson, A.D.C. A hundred years of education: 3rd ed. rev.	370'.973
Phillips, C.E.L. The raiders of Araban	940.542'5
The place of fascism in European history	320.5'33'094
Porter, E. Bridgwater industries past and present	338'.09423'8
Pepin, Eugene The Loire and its Chateaux	914.45'04'83
Power, J.H. The Philippines: industrialization and trade policies	338'.09599
Rees, Ioan Boween Government by community	352'.042
Reun, D.F. Cliffords Tower and the castles of York	914.27'4
Report from the Select Committee on Overseas Aid Cmnd 4687	338.91'172'4
Report on the Census of Production 1968	338'.0942
Road Research Group on Lighting, Visibility and Accidents. Lighting, visibility and accidents: a report	614.8'62
Robinson, A. J.M. Keynes	330.15'6
Robinson, J. Economic heresies	330'.1
Rogers, C.R. Encounter groups	158'.2

Rostow, W.W. Politics and the stages of growth	320'.01
Roth, Ernst A tale of three cities	309.1'439'1
Roy, David Tod Kuo mo-jo: the early years	915.1'03'40924
Royal Commission on Environmental Pollution Report - Cmnd. 4505	301.3'1
Russia enters the 20th Century	309.1'47'08
Sahay, Arun (ed.) Max Weber and modern sociology	301'.045
Scupham, John An introduction to mass communications	301.16
Second survey of aircraft noise	614'.78
Shaw, Donald Lymburn Gwydyr Forest in Snowdonia	333.7'5'0942923
Sherman, Barrie The Immigration Bill and the Industrial Relations Bill	325.42
Shewmaker, K.E. American and Chinese Communists	301.29'51'073
Simmons, J. Life in Victorian Leicester	914.25'42
Spotlight on physical and mental assessment	362.7'8'2
Stacey, F. The British Ombudsman	354.42'0091
The story of the lifeboat	614.8'64
Strange, Susan Sterling and British policy	332.4'54
Taylor, A.J.P. Lloyd George: twelve essays	942.083'0924
Thomas, G.F. History of Huntercombe Manor	914.25'75
Thompson, Dorothy (ed.) The early Chartists	322'.44
Tyson, J.C. The origins and development of the training of Teachers in the University of Newcastle upon Tyne	370'.71

Wainwright, Ken Practical export marketing	658.8
White, Jon Manchip Cortés and the downfall of the Aztec empire	972'.02'0924
Williams, J.D. Teaching technique in primary maths	372.7'3'044
Winch, D.M. Analytical welfare economics	330.12'6
Working party on traffic and capacity at Heathrow	387.7'36
Windsor, Philip Germany and the management of détente	327'.43'01717

APPENDIX B

Source sample of United States monographs, 1971

The titles listed below were selected from the American Book Publishing Record (1971). Classification is taken from the Dewey Decimal Classification. Titles listed under Group B are for replacement of items rejected from Group A after examination of sources.

Group A

Abu-Lughod, Ibrahim, ed. Transformation of Palestine: essays on the origin and development of the Arab-Israeli conflict	956
Accountability through Evaluation Institute. Educational accountability through evaluation	379'.15
Alberti, Leone Battista The Albertis of Florence	301.42
Alford, R.R, et. al. Society today	301
Alisky, Marvin Guide to the government of the Mexican state of Sonora	320.972'1
Allen, Walter E. Transatlantic crossing	914.2
Ammer, D.S., ed. Readings and cases in economics	330'.08
Anderson, P.S., comp. Linguistics in the elementary school classroom	372.6
Ashabranner, B.K. A moment in history: the first ten years of the peace corps	309.2'23573
Bach, George L. Making monetary and fiscal policy	339.5'0973
Baker, Stephen How to live with a neurotic husband	301.42'7'0207
Banks, James A., comp. Teaching social studies to culturally different children	371.9'67
Bardin, Shlomo, comp. Self-fulfillment through Zionism	301.451'924

Betts, Raymond F., comp. The ideology of blackness	301.451'96
Bietenholz, Peter G. Basle and France in the sixteenth century	914.94'3
Blanton, Smiley, Diary of my analysis with Sigmund Freud	150.19'52'0924[B]
Bocca, Geoffrey The Great resorts: an inside view	914
Brown, Les Television: the business behind the box	381.55'4'0973
Bruntz, George S. Understanding our government; with cases and problems	320'0973
Burby, Raymond J. Household decision processes in the purchase and use of reservoir recreation land	333.9'1'009756S
Burby, Raymond J. A model for simulating residential development in reservoir recreation areas	333.9'1'009756S
Burner, David A giant's strength: America in the 1960's	320.9'73'092
Burrows, James C. Industrial location in the United States	338.6'042'0184
Butrick, Frank M. How to develop new products for sale to industry	658.5'75
Castor, Henry The Tripolitan War. 1801-1805	973.4'7
Cawley, James S. Exploring the little rivers of New Jersey	917.49
Chartrand, R.L. Hope for the cities	301.3'4
Chon, Eric The dragon and the phoenix	301.41'79'51
Clagne, Ewan The aging worker and the union	331.3'94
Clarke, John I. Population geography and the developing countries	301.3'29'1724
Cleary, Robert E. Political education in the American Democracy	320'.07
Cobbe, Janet Why, how and where to live in Mexico	917.2'04'82

Cole, Hubert Fouché: the unprincipled patriot	944.05'0924[B]
Cole, Rosalind Europe: a second time around....	914'.04'55
Cordova-Rios, Manuel Wizard of the Upper Amazon	970.3
Curtis, Lewis Perry Apes and angels: the Irishman in Victorian caricature	301.451'9162
Danielson, Clarence L. Basalt: Colorado Midland town	917.88'44'033
De Fleur, Melvin, L., et. al. Sociology: man in society	301
Ditton, James T. Personal teaching	373.1'1'02
Dinnerstein, Leonard, comp. American vistas	971.3'03
Dyer, Frederick C. The enjoyment of management	658.3
Eisele, James E. Computer assisted planning of curriculum and instruction	371.39'445
Erikson, Allen G. Reading innovations in American schools	371.9'67
Erlich, John, comp. Student power, participation and revolution	322'.44
Eydoux, Henri Paul In search of lost worlds	915.6'03
Eyestone, Robert The threads of public policy	309.2'62
Farmer, Martha L., ed. Counseling services for adults	378.1'94
Fetscher, Iring Marx and Marxism	335.4'0924
Fletcher, L.B., et. al. Guatemala's economic development: the role of agriculture	338.1'097281
Fodor's Great Britain	914.2'04'8
Ford, Worthington C. Defences of Philadelphia in 1777	973.33'3

Franklin, B.J., comp. Research methods: issues and insights	301.'01'8
Gibson, Arrel M. The Chickasaws	970.3
Gest, R.R., comp. Readings: marketing and society	658.8'008
Gorham, Maurice A.C. Ireland yesterday	914.15'03'80222
Granger, Robert L. Educational leadership	371.2
Green, David The containment of Latin America	327.73'08
Green, John L. Budgeting in higher education	658.1'54
Guerrini, Maurice Napoleon and Paris: thirty years of history	944.050924[B]
Gutkind, E.A. International history of city development, Vol. 6	301.36
Harman, Humphrey Men of Masaba	398.22'09676'2
Hart, Henry H. Sea road to the Indies	910.9'469
Harvat, Robert W. Physical education for children with perceptual-motor learning disabilities	371.9
Hazel, Arthur C. Enjoying a profitable business	658'.022
Hilger, Inez Together with the Ainu	915.2'06'946
Hildebrand, Verna Introduction to early childhood education	372.21
Hite, James C., ed. Coastal zone resource management	333.9'17
Hodgkinson, Harold, L. Power and authority	378.1
Howard, Alan, comp. Polynesia: readings on a culture area	392'.0996
Introductory statistics for the behavioural sciences	300'.1'82

Jessup, Michael H. Discipline: positive attitudes to learning	373.1'1'02
Johnson, Elmer D., comp. South Carolina: a documentary profile of the Palmetto state	975.7
Judd, L.M. Lawrence M. Judd and Hawaii: an autobiography	996.9'03'0924
Kagan, Jerome Change and continuity in infancy	155.42'2
Kane, R.S. South America, A to Z	918'.04'3
Kedwood, Harry R. The anarchists	334.83'09
Keith, K. Wymand Long line rider: the story of Cummins Prison Farm	365'6'0924
Kelley, Ben The pavers and the paved	388.1'1
Kennedy, John F. John F. Kennedy, 1917-1963: chronology, documents...	973.922'0924[B]
Kiker, B.F., comp. Investment in human capital	331
Kirby, S.W. Singapore: the chain of disaster	940.542'5
Kroth, Jerome A. A programmed primer in learning disabilities	371.92'6
Kunz, Frederick A. Responsible family living: a study course for adults	301.42
Lessler, Frederick Roads and trails of Olympic National Park	917.97'98'044
Lennard, H.L. et. al. Mystification and drug mususe: hazards in using psychoactive drugs	362.2'92
Liebow, Averill A. Encounter with disaster: a medical diary of Hiroshima	940.547'5
Loewenstein, L.K. Urban studies: an introductory reader	301.3'6'0933
Lowell, M. The management of libraries and information centers	658'.91'02
Lupo, Alan Rites of way: the politics of transportation in Boston and the US city	388.4'11

Malcolm, Henry Generation of Narcissus	301.43'15'0973
Micali, Paul J. The Lacy techniques of salesmanship	658.85
Mishima, Sumie (Seo) The broader way: a woman's life in the new Japan	915.2'03'33
Moore, Mary H. Through the years with God	372.1'1'00924 [B]
Morton, Michael S. Scott Management Decision Systems: computer based support for decision making	658.4'03
Mrazek, James E. The fall of Ebey Emael: prelude to Dunkerque	940.542'1
Myers, Charles A. The role of the private sector in manpower development	331.2'59'0973
Naylor, Thomas H. Computer simulation experiments with models of economic systems	330'.01'84
Nemser, William An experimental study of phonological interference in the English of Hungarians	414
Niewyk, Donald L. Socialist anti-Semite and Jew: German social democracy confronts the problem of anti-semitism, 1918-1933	329.9'43
Nimmo, Dan D. The Texas political system	320.9'764
Norton, Hugh S. Modern transport economics	380.5'0973
Odegard, Holtan Peter The politics of truth	350
Orr, L.L. et. al.,eds. Income maintenance: inter-disciplinary approaches to research	331.2'3'0973
Pannov, Reuben The unmarried father	362.8
Parker, William B. The life and public services of Justin Smith Marvell	973.6'6'0924[B]
Parker, Franklin George Peabody: a biography	361.7'4'0924
Parsons, T. The system of modern societies	301

Phillips, Almarin Technology and market structure: a study of the aircraft industry	338.4'7'6291300973
Pierini, Mary P.F. Creative dramatics	372.6'6
Pittsburgh University. Learning Research and Development Center The nature of reinforcement	153.1'534
Platt, Anthony M., comp. The politics of riot commissions, 1917-1970: a collection of official reports and critical essays	364.14'3
Pollock, Norman H. Nyasaland and Northern Rhodesia	325.3'42'096894
Powers, Thomas Diana: the making of a terrorist	301.6333'0924
Raper, A.F. Sharecroppers all	309.1'25'04
Read, Sir Herbert E. Anarchy and order: essays in politics	335'.83
Reeves, N., comp. Womankind beyond the stereotypes	301.41'2'08
Rhodes, R.I., comp. Imperialism and underdevelopment: a reader	382.1
Riggs, Robert E. US/UN: foreign policy and international organization	327.73
Robinson, John Highways and our environment	388.1'0973
Robinson, W.S., comp. Beyond survival	917.3'03'92
Robottom, John Twentieth century China	951
Roscoe, Edwin S. Organization for production	658
Rothman, Esther P. The angel inside went sour	373.747'23
Sechler, D., ed. California water: a study in resource management	333.9'1'009794
Shulman, Alix To the barricades: the anarchistic life of Emma Goldman	335'.83'0924
Sprinthall, N.A. Guidance for human growth	371.4

Stephens, R.H. Wealth and power in Peru	301.29'85
Stieve, Friedrich Isvolsky and the World War	940.3'112
Stove, James C. Commitment to teaching	370'.973
Tanzer, Michael The sick society: an economic examination	330.973
Tart, Charles T. On being stoned: a psychological study of marijuana intoxication	157.'6'3
Taylor, Foster J. The United States and the Spanish Civil War	946.081
Touraine, Alan The May movement: revolt and reform	944.083
Trecher, Harleigh B. Social work administration	658.'91'361
Twitchett, K.J., ed. International security: reflections on survival and stability	327'.116
Vanek, Jaroslav The participatory economy	338.6
Vincent, Jack E. Factor analysis in international relations	327.'01'82
Walsh, John E. The Mayflower compact	973.2'2
Weston, John F. Essentials of management finance	658.1'5
Weber, Eugen Joseph A modern history of Europe	914'.03'2
Weinberg, Eve Community surveys with local talent: a handbook	362.1'2'0723
Weyl, Nathaniel American statesmen on slavery and the negro	973'.04'96073
Whiting, Charles Patton	940.542'1'0924
Wilderness Press Matterhorn Peak	917.94'4

Wilkie, Jane, comp. The sun is going down for all of us: notes on the murder of Mother Earth	333.7'2'08
Williamson, H.N. Farewell to the Don: the Russian revolution in the journals of Brigadier H.N.H. Williamson	947.084'1
Wilson, Robert L. Theodore Roosevelt: outdoors man	973.91'1'0924[B]
Winthrop, Henry Psychological aspects of community: alienation, identity and social breakdown	301.1
Younie, William J. The world of rehabilitation: an atlas for special educators	331.5
Zelnik, R.E. Labor and society in tsarist Russia	301.44'42'0947

Group B

Abrams, Charles The language of cities: a glossary of terms	301.3'6'03
Brown, Alan A., et. al., eds. Perspectives in economics: economists look at their fields of study	330
Chapman, Abraham, comp. Steal away: stories of the runaway slaves	917.3'06'96073
Colman, Arthur D. The planned environment in psychiatric treatment	362.2'1
Garman, Joseph B. Kefauver: a political biography	973.9'0924[B]
Gropper, George Leonard Criteria for the selection and use of visuals in instruction	371.33'5'077
Harvey, Thomas E. Canisius College: the first nine years	378.747'97
Kumar, R., ed. Essays on Gandhian politics	325.3'42'0954
Kuznets, Simon S. Economic growth of nations	339
McCarty, Harold H. The geographic basis of American economic life	330.973'0917

Mathieu, Robert P.
Hospital and nursing home management 658'91'3621

Metcalf, George R.
Up from within: today's new Black leaders 301.451'96'073

National Urban Coalition
Counterbudget: a blueprint for changing national priorities, 1971-1976 309.2'3'0973

Quester, George H., comp.
Power, action and interaction: readings on international politics 327.'1

Shayon, Robert L.
Open to criticism 301.16

Strom, Robert D.
The urban teacher 371.1'02

Ward, Sol A.
Urban planning and architecture and the use of the critical path method 658.4'032

Williamson, Harold F.
Opportunities in economics careers 330.'023

APPENDIX C

Subject classification of British monographs source sample

Class	Subject	Sample distribution		BNB (1971)[1] distribution
		No. in sample	% of sample	% of titles
150-159	Psychology	4	2.7	2.1
300-309	Social sciences Sociology Social psychology Social conditions	19	12.7	10.2
310-319	Statistics	-	-	0.5
320-329	Political science International relations	20	13.3	6.8
330-339	Economics	26	17.3	18.6
350-354	Public administration	4	2.7	1.7
360-363	Social services	8	5.3	3.3
364-365	Criminology	-	-	1.2
370-379	Education	10	6.7	9.8
380-389	Commerce	8	5.3	6.3
390-399	Customs and folklore	-	-	1.5
400-419	Languages Linguistics	1	0.7	0.7
572	Ethnology	-	-	0.0
614	Public Health	4	2.7	1.2
658	Management	9	6.0	5.0
711-719	Town and country planning	4	2.7	1.7
900-909	Geography, history, etc.	1	0.7	1.0
910-912) 914-919)	Geography and travel	20	13.3	19.8
940-999	History (except ancient history	12	8.0	8.4
		(150)	(100)	(100)

[1]Contains items published in 1970 and 1971 and a few serial items.

APPENDIX D

Subject classification of United States monographs source sample

Class	Subject	Sample distribution		ABPR (1971) distribution
		No. in sample	% of sample	% of titles
150-159	Psychology	4	2.7	3.9
300-309	Social sciences Sociology Social psychology Social conditions	24	16.0	14.9
310-319	Statistics	-	-	0.3
320-329	Political science International relations	12	8.0	9.8
330-339	Economics	22	14.7	12.7
350-354	Public administration	1	0.7	1.2
360-363	Social services	4	2.7	3.0
364-365	Criminology	2	1.3	1.2
370-379	Education	19	12.7	9.7
380-389	Commerce	6	4.0	2.7
390-399	Customs and folklore	2	1.3	2.1
400-419	Languages Linguistics	1	0.7	0.9
572	Ethnology	-	-	0.1
614	Public health	-	-	0.6
658	Management	11	7.3	4.6
711-719	Town & country planning	-	-	0.5
900-909	Geography, History, etc.	-	-	1.3
910-912 914-919	Geography and travel	19	12.7	13.0
940-999	History (except ancient history)	23	15.4	17.5
		150	(100)	(100)

ATTENDIX I

Citation record cards

(a) Monograph source: citation to a non-serial

DISISS CITATION RECORD 72

1 Record number	2 Source code	Year	Volume	First page no.

Authors of source item

3		3	
3		3	

Authors of cited item

4		4	
4		4	

Title of cited document

5	

Form of cited document

6								
	Journal	A	Report	C	Conference Proc.	E	Government Pub.	G
	Monograph	B	Newspaper	D	Legal & Legislation	F	Unpublished	H
							Other	J

7 Year of pub. of cited doc.	8 Vol. no. of cited doc. (if any)	9 Page numbers of cited items
		–

(b) Monograph source: citation to a serial

DISISS CITATION RECORD 72

1 Record number	2 Source code	Year	Volume	First page no.

Authors of source item

3		3	
3		3	

Authors of cited item

4		4	
4		4	

Title of cited document

5	

Form of cited document

6								
	Journal	A	Report	C	Conference Proc.	E	Government Pub.	G
	Monograph	B	Newspaper	D	Legal & Legislation	F	Unpublished	H
							Other	J

7 Year of pub. of cited doc.	8 Vol. no. of cited doc. (if any)	9 Page numbers of cited items
		–

APPENDIX F

List of DISISS Working Papers

No. 1 Comparison of results of science user studies with "Investigation into Information Requirements of the Social Sciences". July 1971.

No. 2 A machine readable data base of social science serials. November 1971.

No. 3 Relationship between primary and secondary literature in the social sciences: a study of secondary literature in criminology. June 1972.

No. 4 Characteristics of citations in social science monographs. June 1972.

No. 5 The selection of journal titles as sources for citation studies and pilot citation study. July 1972.

No. 6 Preliminary work on identifying networks of journal articles and authors in selected areas of the social sciences. July 1972.

No. 7 Size of monograph literature in social science (in preparation).

No. 8 A machine readable data base of social science serials: progress report 1971-72 (to be prepared).

No. 9 Monograph titles cited in social science journal articles (to be prepared).

No. 10 The relationship of frequency of citation to use and value (in preparation).